

WESTERN PACIFIC TINGIDAE (HETEROPTERA): NEW SPECIES AND NEW RECORDS

ERIC GUILBERT

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Nine new species are described from the Western Pacific, namely, *Cysteochila kraussi*, *Leptoptyx varians*, *L. longispina*, *Nesocypselus simplex*, *N. strophii* from Solomon Islands, *Eteoneus samoensis* from American Samoa, *E. palauensis* from Palau Islands, *Idiocysta vanuana* from Fiji, *Omaplax majorcarinatae* from Bonin Islands. Twenty other species are reported from Western Pacific islands (Bonin, Fiji, Marianas, Palau, Samoa, Society, Solomons, Tonga Islands) with comments about their distribution. □ *Tingidae*, *Heteroptera*, *Western Pacific islands*, *taxonomy*

Muséum National d'Histoire Naturelle, ESA 8043, Laboratoire d'Entomologie, 45 rue Buffon, F-75231 Paris cedex 05 France (e-mail: guilbert@mnhn.fr); 31 January 2000.

This paper deals with lace bugs (Heteroptera: Tingidae) from Bonin, Fiji, Marianas, Palau, Samoa, Society, Solomons and Tonga Islands. The first species described from the region was *Tingis irregularis* (Montrouzier, 1861) from New Caledonia. By 1956 Tingidae of Micronesia (Bonin, Volcano, Mariana, Caroline Marshall and Gilbert Islands) had reached 20 species (Drake, 1965). Since then it has risen to 81 species of which about 70% were described by Drake, Poor & Ruhoff between 1943 and 1966. I added 9 species (Guilbert 1997a, 1997b, 1998a, 1998b) to this list and 9 for Vanuatu (Guilbert, 1999). Herein, 29 species are recorded from Bonin, Fiji, Marianas, Palau, Samoa, Society, Solomons and Tonga. Nine are new, namely, *Cysteochila kraussi*, *Nesocypselus simplex*, *N. strophii*, *Leptoptyx varians*, *L. longispina* from Solomon Islands, *Eteoneus samoensis* from American Samoa, *E. palauensis* from Palau, *Idiocysta vanuana* from Fiji, *Omaplax majorcarinatae* from Bonin. Repositories mentioned are Bernice P. Bishop Museum, Honolulu (BPBM), Natural History Museum, London (NHM), Muséum National d'Histoire Naturelle, Paris (MNHN) and National Museum of Natural History, Washington (NMNH).

Abbreviations for collectors are: J.L. Gressitt (JG); N.H.L. Krauss (NK); T.C. Maa (TM); C.W. O'Brien (CO); C.W. Sabrosky (CS); R. Straatman (RS); G.A. & S.L. Samuelson (GSS); C.M. Yoshimoto (CY); B.H. Gagne (BG); W.C. Cagne (WG); E.C. Zimmerman (EZ); J.M. Sedlacek (JS); E.S. Brown (EB); S.N. Lal (SL); C.H. Swezey (CH); W.R. Kallen (WK); J.A. Listinger (JL); M.K. Kamath (MK); R.G. Oakley

(RO); J.W. Beardsley (JB); F.M. Snyer (FS); W. Mitchell (WM).

SYSTEMATICS

Order HEMIPTERA
Suborder HETEROPTERA
Family TINGIDAE

Cysteochila Stal, 1873

Cysteochila comprises around 135 species, and has a widespread distribution; 12 species are known from the Indo-Pacific region; 4 are known from the Solomon Islands: *C. kraussi*, *C. idonea* Drake, 1956, *C. consanguinea* (Distant, 1909), and *C. prata* Drake & Ruhoff, 1965.

Cysteochila kraussi sp. nov.
(Fig. 1)

HOLOTYPE: SOLOMON ISLANDS: ♀, Poitea, Kolombangara, 0-60m, 29.xi.1976, NK, BPBM.

ETYMOLOGY: For the collector.

DESCRIPTION. Head, antennae, abdomen black, legs brown fuscous, pronotum and hemelytra brown yellowish. Body 3.70mm long, 1.08mm wide. Head short, with 2 long, inwardly curved occipital spines, 2 short straight frontal spines and stout, tubercle-like median spine. Antennae slender, I: 0.15, II: 0.14, III: 0.79, IV: 0.46, longer than first 2 together, pilose. Bucculae broad, with 3 rows of areolae, closed anteriorly; labium short, reaching middle of mesosternum; labial sulcus sinuate, narrow, open posteriorly.

Pronotum broader than hemelytra, gibbose, deeply punctate, tricarinate, carinae straight, uniseriate; areolae small. Collar moderately large, 6 areolae wide transversely on top, slightly

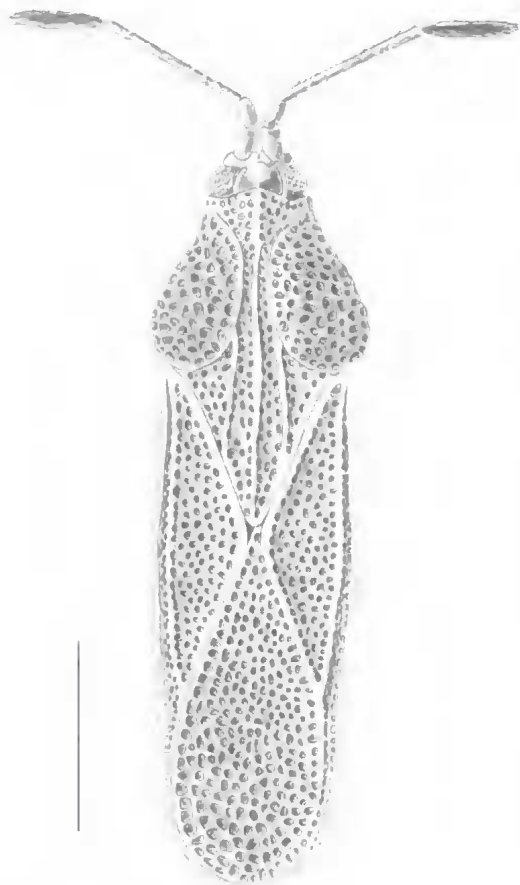


FIG. 1. *Cysteochila kraussi* sp. nov., habitus.

raised to form a tectiform hood not covering head. Paranota large, 8 areolae broad, reflexed inwards, resting on the pronotum, not joining on top but covering lateral carinae and not reaching median carina; areolae small, round.

Hemelytra narrow, longer than body; costal area narrow, straight, margins reflexed upwards, uniseriate, areolae small; subcostal area narrow, mostly biseriate, areolae small; discoidal area large, 6-7 areolae across, areolae small but larger than on costal and subcostal areas; sutural area 11 areolae wide, areolae moderately large, larger at apex; hypocostal laminae uniseriate.

REMARKS. *C. kraussi* differs from *C. nativa* Drake, 1960 by being smaller, and by having paranota not joining dorsally and subcostal area mostly biseriate. It differs from *C. jimmina* Drake, 1960 (New Britain and New Guinea) by the paranota not meeting on top, costal area width and the number of areolae on the costal area,

which is 1-2 areolae wide for *C. jimmina*. It differs from *C. brunnea* Hacker, 1928 (Queensland) by the shorter labium (reaching the meso-metasternal suture in *C. brunnea*), paranota not meeting dorsally, labium length and coloration.

***Cysteochila prata* Drake & Ruhoff, 1965**

NEW RECORDS. SOLOMON ISLANDS: 1 ♂, Kolombangara, Pepele, 30m, 15.III.1964, PS, BPBM.

REMARKS. *C. prata* is known from New Guinea. This is the first record of this species from the Solomon Islands.

***Cysteochila idonea* Drake, 1956**

NEW RECORDS. SOLOMON ISLANDS: 2 ♀, 2 ♂ Guadalcanal, Honiara, 0-100m, NK, BPBM1985.163; 1 ♀, Kolombangara, Gizo, 0-140m, XII.1980, NK, BPBM1981.79.

REMARKS. *C. idonea* is known from NE New Guinea, Kusaie (the Caroline Islands) and the Solomon Islands.

***Cysteochila vitilevuana* Drake & Poor, 1943**

NEW RECORDS. FIJI: ♂ Viti Levu, Namosi Rd, 6km N Queens Hwy, 250m, 3-7.XI.1981, BG, BPBM1981.601; 1 ♂, 1 ♀, 90km E of Tavua, 28.VII.1967, JS, BPBM; 1 ♂ 5 ♀, Vanua Levu, Nakawanga, 9.X.1955, JG; 1 ♀ Vanua Levu, Nakorocau, 23.III.1966, NK, BPBM.

REMARKS. *C. vitilevuana* is known only from Fiji, but is recorded here for the first time from Vanua Levu.

***Leptoptyx* Drake & Ruhoff, 1965**

Previously known from *atopia* and *icelia* from Solomon Islands and New Britain and following Drake & Ruhoff (1965), *Leptoptyx* is allied to *Leptopharsa* Stål 1873, but separated by its reflexed paranota, and longer and tectiform hood. *Leptoptyx* generally resembles *Trachypeplus* Horváth, 1926. Both have reflexed paranota, but *Trachypeplus* has spines on the pronotum and hemelytra, and wider hemelytra.

***Leptoptyx varians* sp. nov.**
(Fig. 2)

HOLOTYPE. SOLOMON ISLANDS: ♂, Honiara, Guadalcanal, 0-200 m, xi.1976, NK, BPBM1977.29.

DESCRIPTION. Head, pronotum, legs and antennae beige to yellowish; abdomen dark brown; femora with a dark brown transverse medial band. Body long, with sparse minute pubescence, 2mm long, 0.74mm wide.

FIG. 2. *Leptoptyx varians* sp. nov., habitus.

Head small, with 5 slender, suberect, moderately long spines; occipital and median spines parallel; median and frontal spines slightly stouter than occipital spines; frontal spines crossed; antenniferous process short; bucculae broad, mostly triseriate, closed in front; labium reaching middle of mesosternum; labial channel moderately wide. Antennae long, slender, 1st and 2nd segments of equal length, I: 0.08, II: 0.08, III: 0.54, IV: 0.25; 4th segment slightly stouter, pilose. Legs short, slender; tarsi slender.

Pronotum gibbose, punctate; areolate on hind process, tricarinate; carinae subparallel, uniseriate; areolae tiny, indistinct; lateral carinae terminating anteriorly at calli; median carina slightly higher than lateral carinae, contiguous with collar; collar 4 areolae broad, erected medially as a tectiform hood higher than top of pronotum; hood extending back between calli to pronotal disc; paranota narrow, reflexed, resting on pronotum, 3 areolae broad; areolae subquadrate; 2 inner rows forming a ridge with last outer row, reaching median carinae anteriorly.

Hemelytra moderately broad and broadened at base, constricted in the middle, flat; costal area mostly biseriate, triseriate at widest part; subcostal area almost vertical, slightly sinuate, biseriate; discoidal area $>1/2$ hemelytral length, 5

FIG. 3. *Leptoptyx longispina* sp. nov., habitus.

areolae broad; junction between RM and Cu at apex of discoidal area slightly tumid; sutural area broad at apex. 6 areolae broad; areolae larger than in other areas.

REMARKS. *L. varians* differs from *L. atopia* Drake & Ruhoff 1965 in having paranota 3 areolae broad and a discoidal area 5 areolae broad, while *L. atopia* has paranota 4 areolae broad and a discoidal area 7 to 8 areolae broad. *L. varians* differs from *L. icelia* Drake & Ruhoff 1965 by the costal area biseriate while it is uniseriate in *L. icelia*.

***Leptoptyx longispina* sp. nov.**
(Fig. 3)

HOLOTYPE. SOLOMON ISLANDS: ♂, Honiara, Guadalcanal, 0-200 m, xi.1980, NK, BPBM1981.79. PARATYPE: 1 ♀ same data as holotype, BPBM.

ETYMOLOGY. For the collector.

DESCRIPTION. Head dark brown; cephalic spines yellow; pronotum and hemelytra beige; hemelytra with some veinlets fuscous, legs and antennae beige; tarsi and first antennal segment slightly darker. Body long, narrow, glabrous. Body 2.4mm long, 0.71mm wide.

Head small, slightly pilose on top, with 5 long, slender spines; occipital and median spines

parallel, adpressed; frontal spines suberect, crossed; bucculae broad, biseriate; antennae long, slender, I: 0.12, II: 0.09, III: 0.79, IV: 0.37; 4th segment slightly stouter, more pilose; labium reaching middle of mesosternum; labial channel slightly enlarged posteriorly.

Pronotum narrow, long, gibbose, punctate, areolate on hind process, tricarinate; carinae distinctly uniseriate; areolae small; lateral carinae not reaching calli anteriorly but interrupted before top of pronotum; median carina higher than lateral carinae; collar 5 areolae broad, elevated medially as a tectiform hood extending backwards to pronotal disc; paranota reflexed, resting on the pronotum, almost touching base of lateral carinae, 4-5 areolae broad; 3-4 outer rows of areolae forming a ridge with the inner row,

Hemelytra long, narrow, flat, slightly constricted posteriorly at 2/3 length; costal area bent dorsally, narrow, uniseriate, areolae moderately large, subquadrate; subcostal area straight, bent downwards, narrow, biseriate, areolae small; discoidal area $>1/2$ hemelytra, 5 areolae broad at widest part, areolae small; junction of RM and Cu at apex of discoidal area slightly tumid; sutural area large at apex, 7 areolae broad at widest part, areolae small at base and large at apex.

REMARKS. *L. longispina* is easily distinguishable from *L. varians* by its narrower hemelytra and costal area, broader paranota and lateral carinae ending before the top of the pronotum. It differs from *L. atopia* which has a biseriate costal area and a sutural area 7-8 areolae wide. Very similar to *L. icelia*, it differs by its broader (4-5 areolae) paranota (2-3 in *L. icelia*), and longer cephalic spines. *L. atopia* and *L. icelia* have short cephalic spines while *L. varians* and *L. longispina* have long spines. The lateral carinae

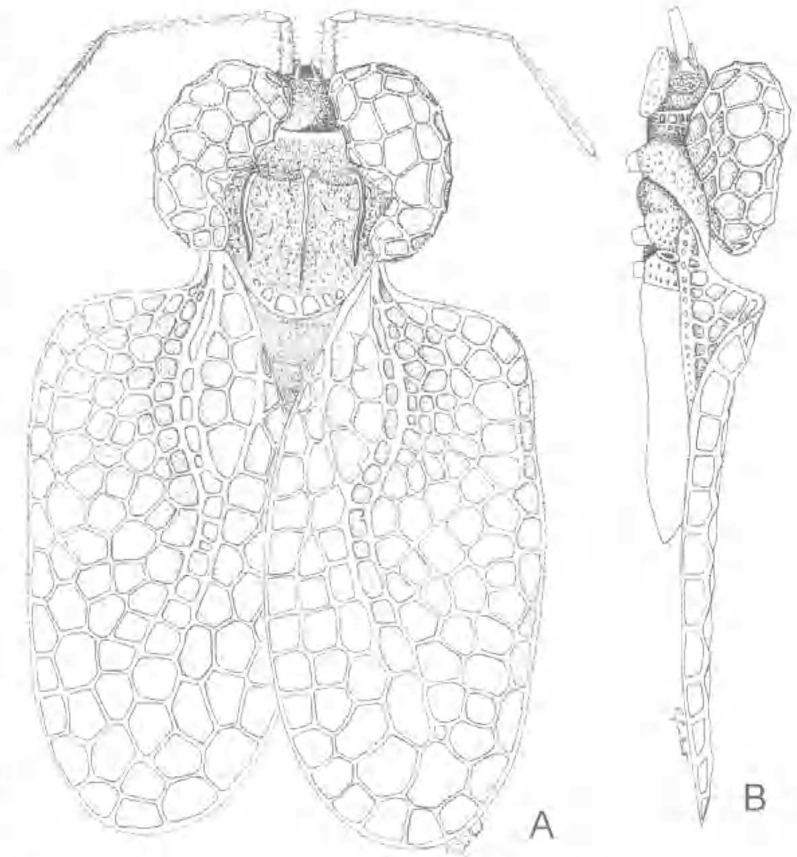


FIG. 4. *Nesocypsela strophii* sp. nov. A, habitus; B, profile.

of *L. atopia* are partly covered by the paranota unlike *varians*, *longispina* and *icelia*.

Nesocypsela Kirkaldy, 1908

Nesocypsela includes 12 species (including these 2 new species). Half are known from Fiji, and the others from neighbouring islands (Vanuatu, New Guinea, New Britain, New Ireland and now the Solomon Islands).

Nesocypsela strophii sp. nov.

(Fig. 4)

HOLOTYPE, SOLOMON ISLANDS: ♀ Popomanasiu, Guadalcanal, 4,400 m; 9-10.xi.1965, Hunuvalekama, Roy. Soc. Exped. Brit. Mus. 1966. 1, malaise trap, NHM.

ETYMOLOGY. For the collector.

DESCRIPTION. Head, pronotum and abdomen dark brown. Hemelytra and paranota hyaline, veins beige to yellowish. Legs and antennae yellowish, except tarsi dark brown. Body length;

3.45, body width: 2.25, hood length: 0.83, hood width: 0.46.

Head small, sparsely pubescent, with 2 long, slender frontal spines. Bucculae small, short, mostly triscriate, slightly open in front. Labium long, reaching middle of metasternum. Labial channel broad, closed behind. Antenniferous process short, acute. Antennae long, slender, sparsely pubescent; I: 0.31, II: 0.11, III: 0.68, IV: 0.65. Legs long, slender; tarsi short, stout, pilose beneath.

Pronotum short, wide, tricarinate, slightly punctate, sparsely pilose; hind process rounded, not covering base of abdomen, with a transverse row of 6 rounded areolae on posterior margin. Carinae moderately narrow, raised, foliated, without areolae, extending from calli to posterior margin. Collar short, without hood, but anterior margin raised to form a small collarette. Paranota hyaline, large, reflexed but not resting on pronotum, outer margins not meeting dorsally but bent downwards, partly covering head but not covering pronotum, slightly serrate, 7 areolae wide, areolae large.

Hemelytra hyaline, much larger than abdomen, sharply widened at base. Outer margins anteriorly bent upwards, then bent downwards. Costal area wide, 6 areolae broad at widest part, areolae large. Subcostal area sinuate, bent downwards, uniseriate. Discoidal area small, biseriata, 7 areolae, inner areolae larger. Sutural area triseriata, areolae large.

REMARKS. *N. strophii* is distinguishable within the genus by its collarette and transverse row of areolae on the pronotum. It is very close to *N. muiri* Drake & Poor, 1943 (Fiji) which has a costal area 6 areolae deep, clouded black transverse bands on the hemelytra and 2 transverse rows of areolae on the posterior margin of the pronotum.

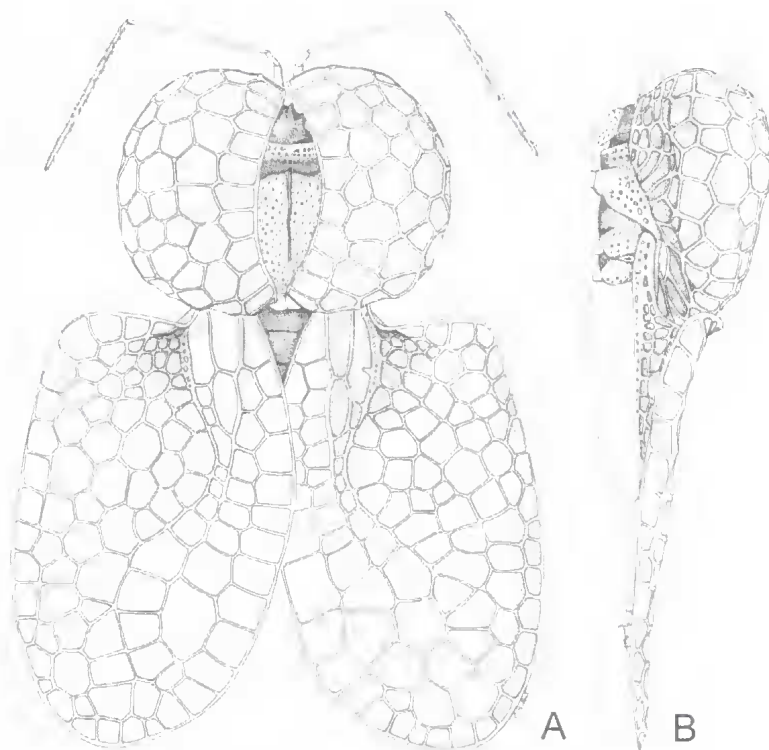


FIG. 5. *Nesocypselas simplex* sp. nov. A, habitus; B, profile.

***Nesocypselas simplex* sp. nov.**
(Fig. 5)

HOLOTYPE. SOLOMON ISLANDS: ♀ Popomanasiu, Guadalcanal, 4,400 m; 10.xi.1965, Hunuvalekama, Roy. Soc. Exped. Brit. Mus. 1966.1, low vegetation in camp, NHM.

ETYMOLOGY. For the collector.

DESCRIPTION. Head, pronotum and abdomen dark brown. Paranota hyaline, hemelytra hyaline, with slightly clouded spots, veins brown. Legs and antennae yellowish, except tarsi and 4th antennal segment dark brown. Body 4.84 long, 3.78 wide; hood 2.40 long, 1.75 wide.

Head small, spineless. Bucculae very small, short, biseriata, widely open in front. Labium reaching meso-metasternal suture. Labial channel broad, closed behind, ostiolar canal small. Antenniferous process short. Antennae long, slender, slightly pubescent; I: 0.35, II: 0.15, III: 1.23, IV: 0.92. Legs long, slender; tarsi short, stout, pilose beneath.

Pronotum short, wide, tricarinate, slightly punctate, sparsely pilose; hind process rounded,

not extending over base of abdomen, without areolae on posterior margin. Carinae moderately narrow, raised, foliate, without areolae, not reaching posterior margin. Collar short, without hood, triseriate. Paranota hyaline, large, raised, reflexed, not resting on pronotum, outer margins almost meeting in front and below but not meeting dorsally, partly covering head and pronotum, slightly serrate, 8 areolae wide, areolae moderately large.

Hemelytra hyaline, much larger than abdomen, sharply widened at base. Outer margins anteriorly bent upwards, then bent downwards. Costal area wide, 6 areolae broad at widest part, areolae large. Subcostal area sinuate, bent downwards, uniseriate, areolae larger than on costal area. Discoidal area small, barely distinct from the subcostal area, of 2 very large areolae. Sutural area biseriate, areolae large.

REMARKS. *N. simplex* resembles *N. evansi* Drake, 1953 generally, but differs in its non areolate posterior process of the pronotum and uniseriate subcostal area. It is distinguished within the genus by its paranota.

Nesocypselas dicysta Kirkaldy, 1908

NEW RECORDS. FIJI: ♂ Viti Levu: Nausori, II.1951, NK; 1 ♂ 2 sex undet., Rewa, Muir, XII.1905, BPBM.

REMARKS. *N. dicysta* is known only from Fiji.

Idiocysta China, 1930

Five of the 6 *Idiocysta* species are restricted to Fiji. *I. hackeri* is only known from Samoa.

Idiocysta vanuana sp. nov.
(Fig. 6)

HOLOTYPE. FIJI: ♀, Wainigata Res. Stn, Vanua Levu, 0-100m, 5.X.1979, SL & GSS, BPBM1979.387.

DESCRIPTION. Head and body beneath black; pronotum, hemelytra, antennae and legs beige;

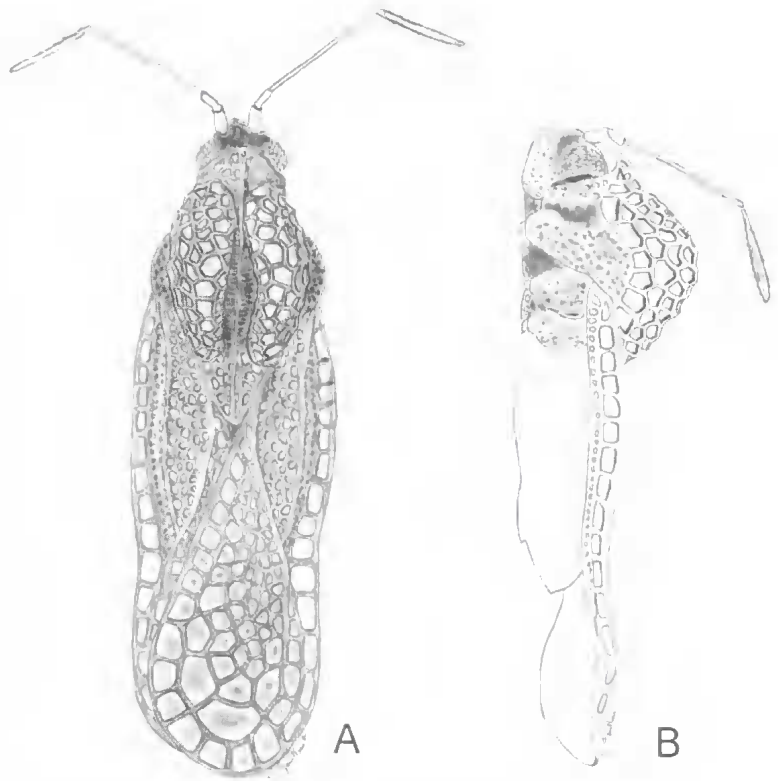


FIG. 6. *Idiocysta vanuana* sp. nov. A, habitus; B, profile.

posterior part of hemelytra and top of pronotum darker. Body 2.68 long, 0.89 wide.

Head small, short, armed with a short median spine; bucculae small, narrow, mostly triseriate, closed in front; labium almost extending beyond mesometasternal suture; labial channel widened and closed posteriorly; antennae long, slender, I: 0.12, II: 0.08, III: 0.55, IV: 0.43, 4th segment slightly pilose. Legs and tarsi long, slender.

Pronotum gibbose, punctate, areolate on hind process, tricarinate, densely pilose between carinae; carinae raised, uniseriate, areolae subquadrate, moderately large; collar narrow, biseriate, raised dorsally to form a tectiform hood, lower than median carina but higher than top of pronotum, slightly extending forwards but not covering head; paranota large, raised, reflexed but not resting on pronotum, not meeting dorsally, but covering part of pronotum, also covering lateral carinae but not median carina, 6 areolae wide; areolae deep, moderately large, polygonal.

Hemelytra narrow, a little wider than pronotum; principal veins slightly raised; costal area bent upwards, uniseriate, areolae large and

quadrate; subcostal area same width as costal area, straight, almost vertical, biscriate, areolae small and rounded; discoidal area narrow, $>1/2$ length of hemelytra, 4 areolae wide, areolae small and rounded; sutural area 5 areolae at widest part, areolae small anteriorly, large posteriorly.

REMARKS. *I. vanuana* is close to *I. bicolor* Drake & Poor, 1943 in hemelytral structure, however the paranota of *I. bicolor* are smaller (5 areolae wide) and meeting on top. It is also close to *I. dryadis* Drake & Poor, 1943 but its paranota are wider (6 areolae deep while *I. dryadis* 4). Its subcostal area is biscriate, while that of *I. dryadis* is bi- to triscriate. Also similar to *I. fijiana* Drake & Poor, 1943, it differs by its wider subcostal area (biscriate while that of *I. fijiana* is uni- to biscriate), and by its paranota (larger by one row of areolae) which do not meet dorsally.

Idiocysta hackeri China, 1930

NEW RECORDS. SAMOA: 2♂, Upolu, Afiamalu, 8.VI.1940, 2200m, *Eugenia* sp., CH; 1♀, Upolu, Afiamalu, 24.VII.1940, 800m, beating, EZ; 1♀, Upolu, Afiamalu, 13.VII.1940, 1000m, beating dead branches, EZ. 1♀, Upolu, Malololei road, 8.VII.1940, 1600-1800m, beating shrubs, EZ. 1♀, Tutuila, 12.I.1958, WK, BPBM.

Idiocysta fijiana Drake & Poor, 1943

NEW RECORDS. FIJI: 1♀, Viti Levu, Nukurua Forest, logged area, 60-130m, 15.X.1979. MK, GSS, BPBM 1979.260.

REMARKS. This specimen is slightly different from the type in that its paranota are almost closed dorsally but not as closed as in the type and the labium reaches the meso-metasternal suture, while in the type it extends to near the base of mesosternum.

Idiocysta florid Drake & Poor, 1943

NEW RECORDS. FIJI: 2♂ 4♀, Viti Levu, Namosi Rd, 16 km N Queen's Hwy, 330m, 3-7.XI.1981, on *Alpinia boia* leaves, WG, BPBM1981.601.

Idiocysta dryadis Drake & Poor, 1943

NEW RECORDS. FIJI: 1♂, Viti Levu, Namosi Rd, 3km N Queen's Hwy, 100m, *Myristica* sp. leaves, BPBM1981.601; 9♂ 3♀ 3 fifth instar larvae, Viti Levu, Foster's Pk, 10km N of Suva, 1100m, *Myristica* sp., BPBM1981.601.

Eteoneus Distant, 1903

Eteoneus comprises 20 species; 5 in the Ethiopian region, 1 in China; 14 in the Oriental

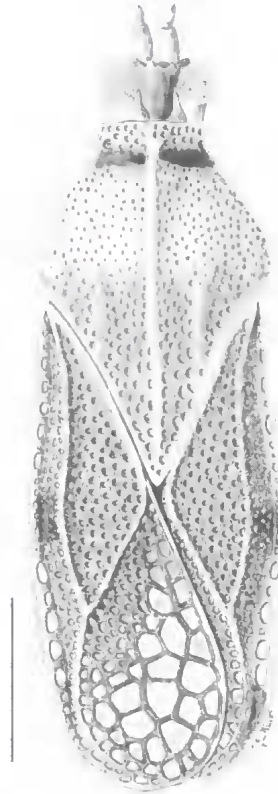


FIG. 7. *Eteoneus samoaensis* sp. nov., habitus.

region from west India to the Bismarck Archipelago and Palau Islands. This is the first description of an *Eteoneus* species from Samoa and 2nd from Palau.

Eteoneus samoaensis sp. nov.
(Fig. 7)

HOLOTYPE.: AMERICAN SAMOA: ♀ Mulinuu, Tutuila, 8.xii.1963, TM, BPBM.

DESCRIPTION. All body, antennae and legs brown fuscous. Body 4.39 long, 1.54 wide.

Head large, with sparse minute pubescence on top, armed with 4 spines; occipital spines short, slender; frontal spines small, tubercle-like; eyes very large, with post-ocular plate behind; bucculae small, narrow, triseriate, closed in front; labium long, reaching meso-metasternal suture; labial channel enlarged posteriorly, closed behind; 1st segment of antennae stouter than 2nd, I: 0.25, II: 0.15, 3rd and 4th segments lacking.

Pronotum strongly gibbose, long, clothed with short pubescence, deeply punctate, areolate on hind process, tricarinate; median carina distinct

all pronotum length; lateral carinae almost indistinct, present only on hind process, not reaching top of pronotum; calli wide, collar narrow, biseriate, not raised to form a hood; paranota almost indistinct, reduced to a slight ridge all pronotum length.

Hemelytra flat, not widened, same width as pronotum, covered with short pubescence; costal area straight, narrow, moderately bent upwards, uniseriate; areolae rounded, varying in size from small to moderately large; subcostal area narrow, slightly bent downwards, triseriate, areolae rounded and small; discoidal area $>1/2$ hemelytral length, 8 areolae wide at widest part, areolae small and rounded; sutural area large and short, 6 areolae wide at widest part, areolae small to large.

REMARKS. *E. samoensis* is easily distinguishable within the genus except for *E. sigillatus* Drake & Poor, 1936 by the uniseriate costal area. It differs from *E. sigillatus* in its lack of median cephalic spine.

***Eteoneus palauensis* sp. nov.**
(Fig. 8)

HOLOTYPE, PALAU: ♂, Imeliik Netkeng, Sabelthuap, 6.VI.1957, CS, BPBM.

DESCRIPTION. Head, pronotum, fuscous, hemelytra fuscous with a yellowish spot through costal and subcostal areas, at level of apex of discoidal area, body beneath brown; legs and antennae yellowish, except tarsi and 4th antennal segment brown. Body 2.62 long, 0.92 wide.

Head short, wide, slightly pilose on top, without spines; eyes large; bucculae short, broad, biseriate, closed in front; labium reaching meso-metasternal suture, labial channel wide, narrowed at apex, open behind; antenniferous process short; antennae long, slender, pilose; I: 0.14, II: 0.11, III: 0.94, IV: 0.54, 4th segment slightly stouter than others; legs slender, slightly pilose; tarsi long, slender, pilose.

Pronotum strongly gibbose, long, broad, punctate, clothed by short pubescence, unicarinate; carinae distinct, not raised all pronotum length; collar large, triseriate; paranota almost indistinct, reduced to a small ridge.

Hemelytra moderately longer and broader than body, the same width as pronotum, flat, constricted posteriorly at level of apex of discoidal area; costal area narrow, bent upwards, uniseriate, with areolae rounded and moderately large; subcostal area narrow, triseriate, with

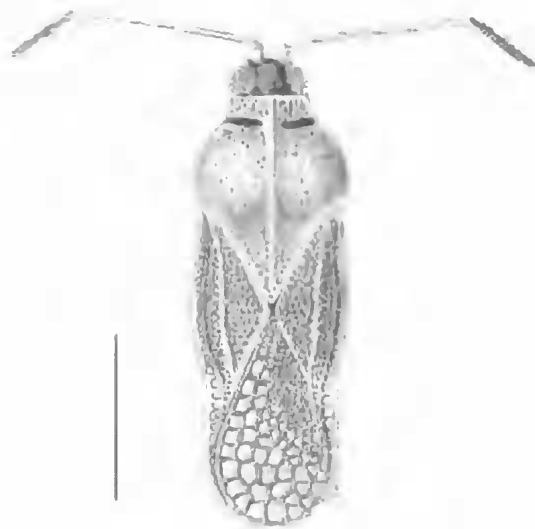


FIG. 8. *Eteoneus palauensis* sp. nov., habitus.

areolae rounded and small; discoidal area $>1/2$ length of hemelytra, 5-6 areolae wide at widest part, areolae small, same size as subcostal area; sutural area wide, 7 areolae wide at widest part, areolae small to large posteriorly.

REMARKS. Like *E. samoensis*, *E. palauensis* differs from the other species by its uniseriate costal area. It differs from *E. samoensis* by lacking cephalic spines, smaller size and discoidal area 6-7 areolae wide. It differs from *E. sigillatus* by lacking cephalic spines and its triseriate subcostal area (pentaseriate in *E. sigillatus*).

***Eteoneus lectus* Drake, 1960**

NEW RECORDS. SOLOMON ISLANDS: 2♀, New Georgia, Gizo, 100m, 16.VII.1964, JS, 1♀, New Georgia, Munda, 0-200m, XI.1972, NK, 1♀, New Georgia, Munda, 0-100m, XI.1975, NK, 1♂, New Georgia, Munda, 0-100m, XI.1980, NK, BPBM1981.79, 1♀, New Georgia, Munda, 0-100m, XI.1976, NK, 1984-299, BPBM, 2♀ 2♂, Guadalcanal, Honiara, 0-200m, I.1984, NK, BPBM1984.168, 1♂ 2♀, Santa Ysabel, Kolotuve, 15.VI.1960, CO, 1♂, Kolombangara, Gizo, 0-140m, XII.1980, NK, BPBM1981.79.

REMARKS. This species is known from New Britain, Bismarck Archipelago, Philippines, NW New Guinea and the Solomon Islands.

***Eteoneus esakii* Drake, 1939**

NEW RECORDS. PALAU: 1♂, Malakal, 2.V.1957, CS, 6♂ 3♀, Koror, 19.IV.1957, sweeping *Premna* sp., CS, BPBM.

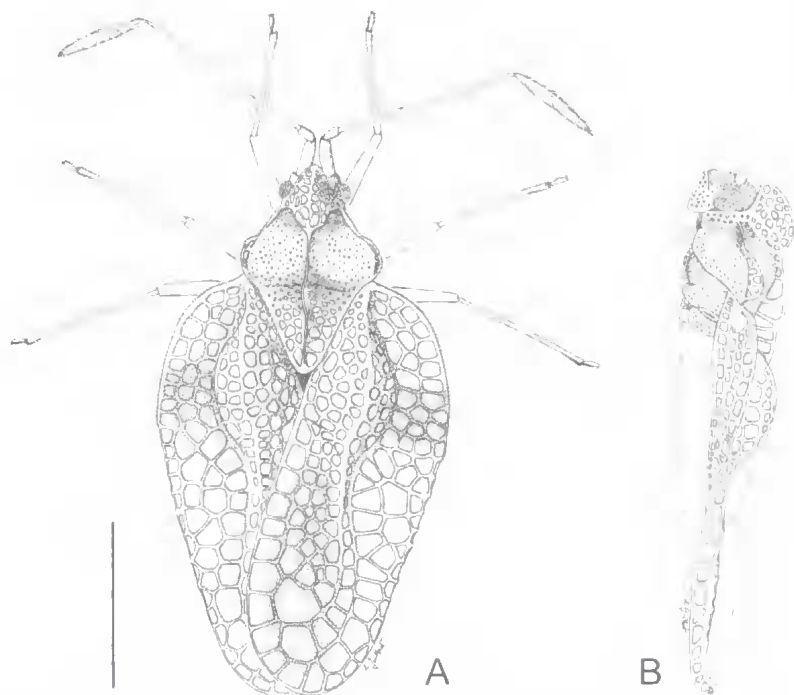


FIG. 9. *Omoplax majorcarinae* sp. nov. A, habitus; B, profile.

REMARKS. Known only from Palau Islands (Koror, Malakal, Peleliu).

***Omoplax* Horváth, 1912**

Originally a subgenus of *Stephanitis*, was raised to full generic rank by Takeya (1962). It now contains two species from the same islands.

***Omoplax majorcarinae* sp. nov.**
(Fig. 9)

HOLOTYPE. BONIN ISLANDS: ♂, Chuo san, Chichi Jima, 300 m, 23-25.VIII.1980, *Cinnamomum* sp., JG, BPBM1980.377. PARATYPES: all from Chuo san, Chichi Jima. 1 ♀, 300m, 23-25.VIII.1980, *Ligustrum* sp., JG, BPBM1980.377; 1 ♂, 300 m, 15.VIII.1980, JG, BPBM1980.377; 1 ♀, 300 m, 23-25.VIII.1980, JG, BPBM1980.377.

ETYMOLOGY. For the collector.

DESCRIPTION. Head, body, legs and antennae brown to yellowish; hemelytra with a dark spot on costal area at anterior third; body beneath darker. Body 3.45 long, 1.85 wide.

Head short, small, without cephalic spines; bucculac small, narrow, much narrower in front, mostly biseriate, closed in front; labium reaching middle of mesosternum; labial channel very

wide, wider and closed behind; antennae long, slender, I: 0.26, II: 0.12, III: 1.31, IV: 0.71, 4th segment slightly pilose.

Pronotum gibbose, punctate, arcolate on hind process, unicarinate; carina all pronotum length, raised, uniseriate, with large areolae, subquadrate and hyaline, collar biseriate, inflated dorsally to form a hood cyst-like, narrow but sharply raised, extending forwards to cover part of the head, 4-5 areolae high, 8 areolae long, areolae small; paranota narrow, present all pronotum length, a small hyaline surface just near calli, ridge-like posteriorly, wider just opposite humeri, there raised, of 5-6 small areolae, outer margins slightly serrate.

Hemelytra sharply widened at base, wider at base than posteriorly, hyaline, with tumid area, outer margins slightly serrate, raised anteriorly and posteriorly bent downwards; costal area broad, 4-5 areolae broad at widest part, areolae large, angular; subcostal area wide anteriorly, narrow posteriorly, sinuate, 4 areolae wide at widest part, areolae small, tumid as to form a vesicle with discoidal area; discoidal area wide, tumid, 4 areolae wide at widest part, areolae small; sutural area moderately wide, 3-4 areolae wide, areolae large, angular.

REMARKS. *Omoplax majorcarinae* is similar to *O. desecta*, and differs only in its labium extending to middle of mesosternum (beyond metasternum in *O. desecta*) and in its paranota having 5-6 (vs 3-5) areolae, and uniseriate median carina (vs biseriate).

***Omoplax desecta* Horváth, 1912**
(Fig. 10)

NEW RECORDS. BONIN ISLANDS: 3 ♂ 5 ♀, Haha Jima, Okimura, 26.IV-9.VI.1958, FSr. 2 ♂, Chichi Jima, Sakai-ura, Bull beach, 12-31.V.1958 FS & WM. 1 ♀, Haha Jima, Chibusu Yama, 200-462 m, 17-20.VIII.1980, *Cinnamomum* sp., JG, BPBM1980.377. 2 ♂ 1 ♀, Haha Jima, Chibusu Yama, 200-462 m, 17-20.VIII.1980,

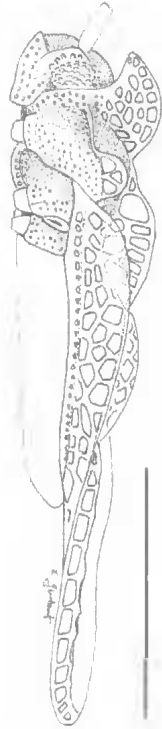


FIG. 10. *Omoplax desecta* Horváth, 1912, profile.

Terminalia sp., JG, BPBM1980.377. 1♂, Haha Jima, Chibusa Yama, 200-462 m, 17-20.VIII.1980, beating, JG, BPBM1980.377. 1♂ 2♀, Chichi Jima, Chuo san, 300 m, 23-25.VIII.1980, *Ligustrum* sp., JG, BPBM#1980.377. 1♀, Is., Chichi Jima, Chuo san, 300 m, 23-25.VIII.1980, *Cinnamomum* sp., JG, BPBM1980.377. 2♂ 1♀, Chichi Jima, Chuo san, 300 m, 23-25.VIII.1980, *Ardisia* sp., JG, BPBM1980.377. 1♀, Chichi Jima, Chuo san, 300m, 23-25.VIII.1980, JG, BPBM1980.377. 2♀, Chichi Jima, foot of Mt Shigure, 100 m, 16.VIII.1980, dead branches, JG, BPBM1980.377. 1♂ 2♀, Chichi Jima, 13-16.VIII.1980, host #3, JG, BPBM1980.377, BPBM.

REMARKS. *O. desecta* is known only from the Bonin Islands (Chichi Jima and Haha Jima).

Tingis Fabricius, 1803

***Tingis parvoroe* Guilbert, 1999**

NEW RECORDS. SOLOMON ISLANDS: 1♀ 1♂, San Cristoval, Maniate, 6.VIII.1960, light trap, CO. 2♂, San Cristoval, Maniate, 5.VIII.1960, light trap, CO. 1♂, Guadalcanal, Roroni, 35km E of Honiara, 10m, 12.V.1964, light trap, RS. 1♀, Guadalcanal, Roroni, 35km E of Honiara, 10m, 9.V.1964, light trap, RS. 1♂, Santa Cruz, Graciosa Bay, 0-50m, 1.1977, NK. 1♀, Mono, 150-300m, 6-11.XI.1980, *Bidens* sp., JG, BPBM1980.484. 1♀, New Georgia, Gizo, 30m, 13.VII.1964, light trap, JS. 1♀, San Cristoval, Wugiroga, 7.VIII.1960, light trap, CO, BPBM.

REMARKS. This species was described from Vanuatu, and is recorded for the first time from the Solomon Islands.

Perissonemia Drake & Poor, 1937

***Perissonemia torquata* Drake & Poor, 1937**

NEW RECORDS. SOLOMON ISLANDS: 1♀ 1♂ 1 sex undet., Choiseul, Sasamongga, 0-100m, II.1984. NK, BPBM1984.168.

REMARKS. *P. torquata* is known from New Guinea, the Philippines and Solomon Islands. Minor differences exist between specimens from these localities. This species was described from Mindanao and has a labium reaching slightly beyond the middle of the metasternum, a triseriate subcostal area and paranota with 2 inner areolae opposite to calli. The outer row of areolae is tiny and without distinct veins on membranous margins. In addition, the outer row has 3 areolae, while some specimens from New Guinea (NMNH) are slightly different; the outer row of the paranota has >3 areolae with a minute outer vein; and the subcostal area is mostly biseriate. These specimens from the Solomons have the labium almost reaching the meso-metasternal suture, a triseriate subcostal area, and narrow paranota, with 1 row of small areolae and 2 extra inner areolae opposite the calli.

Eritingis Drake & Ruhoff, 1962

Eritingis includes 11 species; 9 from Australia (Qld, NSW and Sth Aust) and 2 from the Indo-Pacific region. The genus was erected for *Tingis*-like species with narrow paranota, uniseriate, erect and reflexed against the pronotum.

***Eritingis recens* (Drake & Poor, 1937)**

NEW RECORDS. SOLOMON ISLANDS: 1♂, Guadal canal, Kukum, 18.X.1953. EB, N°3923, Press. By Com. Inst. Ent., B.M. 1958-79, NHM.

REMARKS. *E. recens* is known from Singapore, Vietnam, North Borneo, New Ireland and Palawan and now the Solomon Islands.

***Eritingis pacifica* (Kirkaldy, 1908)**

NEW RECORDS. FIJI: 1♂ 1♀, Viti Levu, Korotongo, 0-100m, III.1981, NK, BPBM1981.131. 1♀, Viti Levu, Nandi, 0-50m, IV.1981, NK, BPBM1981.131.

REMARKS. Known from Fiji and New Britain.

Teleonemia Costa, 1864**Teleonemia scrupulosa** Stål, 1873

NEW RECORDS. FIJI: Viti Levu: Nandarivatu 850m-950m; Suva; Lami; 40km E of Nadi; Rakiraki 0-50m; Korotongo 0-100m; 90km E of Tavua; Tacirua. Ovalau: Levuka 0-200m. Vanua Levu: Nakawanga, Savusavu 0-100m. SOCIETY ISLANDS: Tahiti: Papeete 0-200m; Vallée de Papenoo 0-100m; Vaiufaua 500m; Punaauia 0-150m; Punaauia 0-50m; Fare Rau Ape-Aorai trail 600-1400m; Arue 90-150m. TONGA: Tongatapu: Nuku'alofa 0-100m; Kolovai 0-100m; Mu'a 0-100m; Houma 0-50m; Haamonga. Vavau: Neiafu 0-100m. Eua: Hafu 100-200m; Pangai 0-100m. SAMOA: Savaii: Salelologa 0-50m.

REMARKS. *T. scrupulosa* is a biocontrol species for *Lantana* sp. It is widely distributed in neotropical and oriental regions, also in the Indian islands and Australia. It occurs in Hawaii, Vanuatu, New Caledonia, Fiji, Tonga, Carolines, Solomon, Society Islands, Bismarck Archipelago and now Samoa.

Phatnoma Fieber, 1844**Phatnoma pacifica** Kirkaldy, 1908

NEW RECORDS. FIJI: 1♂, Vanua Levu, Nakawanga, 9.X.1955, JG. 1♂, Vanua Levu, trans-insular road above summit, 500-550m, 6-9.X.1979, dry forest, GSS, BPBM1979.387.

REMARKS. Known only from Fiji.

Holophygdon Kirkaldy, 1908

The genus contains only *H. melanesica* from Fiji and *H. nishidae* Guilbert (1999) from Vanuatu. It was included in the tribe Litadeini (Drake & Ruhoff, 1965), due to the greatly swollen and pilose 2nd tarsal segment, like *Litadea* China, 1924. However, both genera share many different character states with other genera. In addition, *Litadea* is monotypic and known only from Madagascar. A revision of these genera would probably not support the validity of this tribe.

Holophygdon melanesica Kirkaldy, 1908

NEW RECORDS. FIJI: 1♂, Viti Levu, Namosi, rd, 8km N Queen's Hwy, 320m, 3-7.XI.1981, MV light, BG & WQ, BPBM1981.601. 1♂, Viti Levu, Namosi Rd, 14km N Queen's Hwy, 300m, 3-7.XI.1981, on climbing aroid, BG & WQ, BPBM1981.601. 1♂, Viti Levu, Colo-i-suva, 3-6.III.1963, Malaise trap, CY. 1♂, Rewa, Muir, ? 1908. 1, Vanua Levu, Tabia (Thakaudrove), 0-2m, 5.X.1979, SL & GSS, BPBM 1979.387.

Berotingis Drake, 1956

Berotingis includes *B. yapensis* from Yap (Caroline Islands) and *B. guamensis* and *B. rugiana* from the Marianas (Guam and Rota, respectively). These last two species are the only Tingidae known from those islands. This genus was separated from *Tingis* (Drake, 1956) by the large eyes, narrow and scarcely reflexed paranota, absence of hood and the indistinct lateral carinae. It is allied to *Eteoneus* (*B. yapensis* was formerly included in this genus) by the large eyes, the wide paranota, and the indistinct lateral carinae.

Berotingis rugiana Drake, 1956

NEW RECORDS. MARIANAS: 7♂ 6♀, Rugi, Rota, 29.VI.1946, RO, BPBM925.

Stephanitis Stål, 1873**Stephanitis subfasciata** Horváth, 1912

NEW RECORDS. PALAU: 1♂, Angaur Is., 1.V.1954, *Hernandia* sp., JB, BPBM

REMARKS. This species is known from China, Taiwan, Java, Burma, India, New Guinea and Palau.

DISCUSSION

Species richness in the western Pacific varies greatly among the islands. Small islands are species poor, but endemism is high. The known tingid faunas of Hawaii, Tonga, and Society Islands are only *Teleonemia scrupulosa*, which is an introduced species. Excluding *T. scrupulosa*, the tingid fauna of Bonin, Marianas, and Samoa islands is represented by 2 endemic species each. 5 species are known from Palau, and 2 of them are endemic. Only 1 of 4 species known from the Carolines is endemic (to Yap); 10 species occur in Vanuatu, and 4 of them are endemic. New Caledonia has 14 species, all endemic; 20 of 21 species in Fiji are endemic, and 12 of the 21 species in the Solomons are endemic. Before 1999, only 2 species were known from Vanuatu, and 9 (including *T. scrupulosa*) were added to its fauna this year. A recent study of the New Caledonian fauna (Guilbert, in prep.) added 19 species (12 endemic). Thus that many species remain undiscovered on Pacific islands.

Many genera are restricted to the Pacific region. *Omoplax* has 2 species, both endemic to Bonin. *Nobarnus* Distant, 1920, including 5 species, is endemic to New Caledonia. *Nesocypselas* has 11 species distributed from Fiji

to New Guinea. *Leptoptyx*, with 4 species, is known only from the Solomons and New Britain. The 7 species in *Idiocysta* are restricted to Fiji, Samoa and Vanuatu. *Holophygdon* has 1 species in the Solomons and 1 in Vanuatu. *Agaotingis* Montrouzier, 1861, *Cephalidiosus* (Guilbert, 1998) and *Corinthus* Distant, 1920, each with 2 species, are endemic to New Caledonia. *Berontingis* is restricted to the Carolines (Yap) and Marianas. However, high generic endemism in this region may be due to oversplitting at the generic level. Many monotypic endemic genera could be grouped with related genera. *Aulotingis* Drake & Poor, 1943, related to *Leptoptypha* Stål, 1873, is monotypic and known only from Fiji. The long tubular hood-like lateral carinae separate it from *Leptoptypha*. Monotypic, Fijian *Corythotingis* Drake & Poor, 1943, differs from *Physatocheila* Fieber, 1844 in its pronotal structure. Monotypic, Fijian *Nesocysta* Kirkaldy, 1908 is allied to *Nesocypselas* but differs in paranotal shape. Monotypic *Oeocharis* Drake & Ruhoff, 1965 from the Solomons, is distinguished by the globular hood concealing the pronotum.

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